REMARKS

Applicant appreciates the detailed examination evidenced by the final Office Action mailed August 23, 2005 (hereinafter "final Office Action"), including the indication that Claims 3-7, 9, 11-13, 15 and 18-20 recite patentable subject matter. Applicant has amended Claim 1 to correct a minor typographical error. Applicant requests entry of this amendment, as it introduces no new matter and raises no new issues. Applicant also respectfully requests reconsideration and withdrawal of the rejections for at least the following reasons. In particular, the present response incorporates by reference the remarks presented in Applicant's Amendment and Request for Reconsideration filed June 8, 2005, and focuses on the response to these remarks provided in the final Office Action.

In Applicant's Amendment and Request for Reconsideration filed June 8, 2005, Applicant noted:

> . . . the transfer function control circuit and the controlled oscillator circuit are ***both*** responsive to the oscillator control signal. As noted in the present application, this allows for dynamic adjustment of the transfer function of the controlled oscillator circuit, without requiring a "calibration" or "auto-trim" operation in which the oscillator is decoupled. For example, in embodiments of the present invention described with reference to FIG. 4, graceful transition between transfer functions may be implemented responsive to the loop filter voltage while the loop is in operation. *See* Present Application, p. 6.
>
> In sharp contrast, Moon describes a circuit (shown in FIG. 3) that adjusts the operating curve of a VCO 308 in an "off-line" auto-trim mode in which the state machine 316 receives a loop filter voltage V_{LF} while the VCO 308 is decoupled from the loop filter 106 and receives a reference voltage V_{REF}. Consequently, in this auto trim mode, the VCO 308 and the state machine 316 operate responsive to ***different*** signals. This is a similar approach to that of U.S. Patent No. 5,942,949 to Wilson et al., which is discussed in the Background of the Invention section of the present application. Accordingly, Moon neither discloses nor suggests the all of the recitations of Claim 1 and, for at least this reason, Applicants submit that Claim 1 is patentable over Moon. At least similar reasons support the patentability of independent Claims 10 and 16 over Moon. Applicants, therefore, request withdrawal of the rejections of these claims.

In response, the final Office Action asserts that the VCO 308 and the state machine 316 are responsive to the same signal, and that the claims "do not require that the transfer control circuit and the controlled oscillator are "both" responsive to the oscillator control signal at the same time." Final Office Action, p. 3.

The Office Action is correct that the state machine 316 and the VCO 308 shown in FIG. 3 of Moon are responsive to the same circuit, i.e., the charge pump 304, at various different times. Claim 1 also does not require that the controlled oscillator circuit and the transfer function control circuit have to respond to the "oscillator control signal" ***at the same time***. However, Claim 1 does recite that the controlled oscillator circuit and the transfer function control circuit both respond ***to the same signal under certain conditions***.

Applicant notes that signals that are generated from a common source, but that are generated at different times, are different signals. In particular, as described in Moon, the state machine 316 transitions operation of the VCO 308 responsive to a particular signal generated by the charge pump 304 in the "auto-trim" mode. However, in this mode, the VCO 308 is prevented from receiving this particular signal by the switch SW1. See Moon, column 3, lines 60-67. Accordingly, operation in the "auto-trim" mode does not comport with Claim 1.

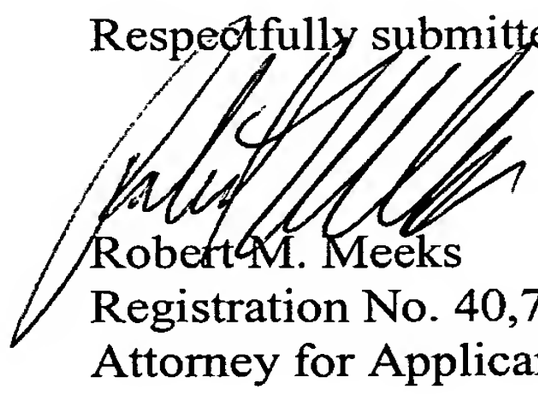
The VCO 308 and the state machine 316 are responsive to the same signal output from the charge pump 304 in the "normal" operating mode. However, in this mode, the state machine 316 does not transition the VCO 308 between different transfer functions. Thus, the "normal" operating mode of Moon also does not correspond to the recitations of independent Claim 1. As the "normal" and "auto-trim" modes are the only two modes of operation described with respect to Fig. 3 of Moon, and neither of these modes meets the recitations of Claim 1, Applicant submits that Moon does not disclose or suggest the recitations of independent Claim 1. For at least these reasons, Applicant submits that Claim 1 is patentable over Moon. Applicant further submits that independent Claims 10 and 16 are patentable for at least similar reasons.

Applicant submits that dependent Claims 2-9, 11-15 and 17-21 are patentable at least by virtue of the patentability of the various ones of independent Claims 1, 10 and 16 from which they depend. Applicant further submits that several of the dependent claims have additional independent bases for patentability, including the Claims 3-7, 9, 11-13, 15 and 18-20, indicated as being separately patentable in the Office Action.

Conclusion

Applicant respectfully requests reconsideration and withdrawal of the rejections of the claims for at least the reasons discussed above, and further requests allowance of the claims and passing of the application in due course. Applicant encourages the Examiner to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,



Robert M. Meeks
Registration No. 40,723
Attorney for Applicant

USPTO Customer No. 20792
Myers Bigel Sibley & Sajovec
Post Office Box 37428
Raleigh, North Carolina 27627
Telephone: 919/854-1400
Facsimile: 919/854-1401

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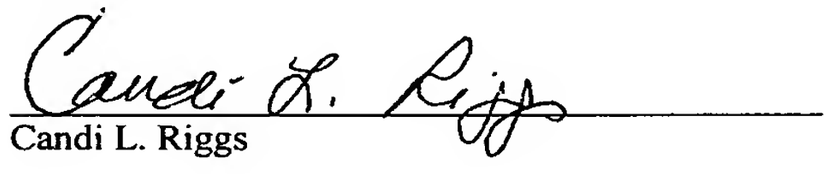

Candi L. Riggs